EXHIBIT 4

Start Time: 14-12-2021 11:34:53(UTC+1)
Last Activity: 8-8-2022 17:15:08(UTC+2)
Participants: 2526945 Роман Семенов, 526943296 Andrew, 1223895328 Eliza Gkritsi, 793320066 Zack Seward, 56181931 Roman Storm, 917230415 Danny Nelson, 442407262 Christie Harkin, 207504596 Alexey Pertsev, 49410950 Sergey 1inch PR
From: 49410950 Sergey 1inch PR
Timestamp: 14-12-2021 11:41:09(UTC+1)
Source App: Telegram
Body:
Hello everyone!

Zack (@zackseward), Andrew (@andrewsmartcontract), let me introduce to you our good friends and very cool DeFi buidlers - Tornado Cash that is represented by one of their co-founders Alex Pertsev � �

Alex (@alex_pertsev), please, meet Zack Seward and Andrew Thurman, news and technology editors from CoinDesk.

Tornado Cash plans a huge technical release in a day or two, so I thought that this story might be interesting for CD to cover.

Giving my word to Alex, who'll explain further details �

Cheers!

From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 12:42:31(UTC+1)
Source App: Telegram
Body:
Hello!

Thank you Sergey, and nice to emeet you @zackseward and @andrewsmartcontract.

I'm happy to share with you that we are about to release our new version of Tornado Cash protocol called Nova. The new version has crucial features for all DeFi users who want to control their privacy.

For more details, please, see this document:

https://docs.google.com/document/d/1DBaAFweeyjjPMEhQ6zfdyhqIFUto58XCOETnRP4B6ME/edit

� Also, keep in mind that the embargo ends at 3.00 pm UTC on December 15, 2021.

Feel free to ask if you'll have any additional questions. Looking forward to some feedback, thanks! � �

From: 793320066 Zack Seward
Timestamp: 14-12-2021 13:59:29(UTC+1)
Source App: Telegram
Body:
ah very cool. let me discuss with the team here and we'll get back to you to set up an interview. thanks!

From: System Message System Message
Timestamp: 14-12-2021 14:34:16(UTC+1)
Source App: Telegram
Body:
<Alexey Pertsev invited Roman Storm>

From: System Message System Message

Timestamp: 14-12-2021 14:34:16(UTC+1)
Source App: Telegram
Body:
<Alexey Pertsev invited Роман Семенов>

From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 14:55:27(UTC+1)
Source App: Telegram
Body:
I also added other co-founders of tornado cash, so we can all keep in touch �

From: 793320066 Zack Seward
Timestamp: 14-12-2021 15:07:41(UTC+1)
Source App: Telegram
Body:
sweet. @andrewsmartcontract is into this one. he'll be in touch
----
From: 526943296 Andrew
Timestamp: 14-12-2021 15:10:39(UTC+1)
Source App: Telegram
Body:
Hi all, thanks for facilitating @dotcomius. Would love to talk today -- when is the team available?

From: 49410950 Sergey 1inch PR
Timestamp: 14-12-2021 15:14:55(UTC+1)
Source App: Telegram
Body:
My pleasure, guys � �

From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 15:52:38(UTC+1)
Source App: Telegram
Body:
Do you mean some kind of interview?

From: 526943296 Andrew
Timestamp: 14-12-2021 15:57:03(UTC+1)
Source App: Telegram
Body:
That's right

From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 16:06:56(UTC+1)
Source App: Telegram
Body:
Sorry, I'm afraid we are all busy before the release. But we would be happy to answer any of your
questions here in chat. Does it work for you?

From: 526943296 Andrew
Timestamp: 14-12-2021 16:16:37(UTC+1)
Source App: Telegram
Body:
Sure, I'll send some over shortly

From: 526943296 Andrew
Timestamp: 14-12-2021 19:44:39(UTC+1)

Source App: Telegram
Body:
Tracking deposit and withdrawal amounts has been one bootleg way to try and "track" tornado cash deposits for some time. How does this change with Nova?

What possible use cases are enabled by shielded custody transfer? Was this a widely-requested feature?

xDai is planning to merge with Gnosis. Have you been in communication with these teams and how does that impact Tornado's migration?

You hinted at some new features in v3. Can you broadly give us a timeline for the release, and maybe tease some specifics beyond the shielded atomic swaps?

From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 20:02:18(UTC+1)
Source App: Telegram
Body:
thank you. I will be back with answers soon

From: 526943296 Andrew
Timestamp: 14-12-2021 23:57:22(UTC+1)
Source App: Telegram
Body:
Do you guys have a dune dashboard or equivalent? Would love some stats on the year
----
From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 23:58:29(UTC+1)
Source App: Telegram
Body:
https://dune.xyz/poma/tornado-cash_1

From: 207504596 Alexey Pertsev (owner)
Timestamp: 14-12-2021 23:58:50(UTC+1)
Source App: Telegram
Body:
sure

From: 526943296 Andrew
Timestamp: 15-12-2021 00:01:13(UTC+1)
Source App: Telegram
Body:
Ty!

From: 526943296 Andrew
Timestamp: 15-12-2021 01:57:55(UTC+1)
Source App: Telegram
Body:
Just circling back to make sure those answers will come in time for the embargo tomorrow
----
From: 2526945 Роман Семенов
Timestamp: 15-12-2021 07:40:46(UTC+1)
Source App: Telegram
Body:
sorry for the delay, it was night in our timezone

> Tracking deposit and withdrawal amounts has been one bootleg way to try and "track" tornado cash

deposits for some time. How does this change with Nova?
In Nova the deposit amount doesn't have to be equal to withdrawal amount because users can do shielded transfers and partial withdrawals. But if a user deposits, say, 0.1337 ETH and than withdraws 0.1337 ETH it will be kinda obvious for everyone that it's the same user, so we recommend to withdraw common amounts like 0.1, 0.5, 1 ETH to better blend in with the crowd, or at least withdraw an amount that differs from the deposit.

> What possible use cases are enabled by shielded custody transfer? Was this a widely-requested feature?
It's basically the same as a regular Ethereum transfer but the addresses and amounts are hidden. In addition to that, it's way cheaper because of L2. It's very convenient feature for private payments, anonymous donations, and more.

> xDai is planning to merge with Gnosis. Have you been in communication with these teams and how does that impact Tornado's migration?
It doesn't impact tornado cash, they are careful to not break any apps with migration.

> You hinted at some new features in v3. Can you broadly give us a timeline for the release, and maybe tease some specifics beyond the shielded atomic swaps?
No timeline yet, but apart from mentioned NFT and ERC20 support, and easy anonymity mining 2.0 there could be some cool features like diversified addresses which allow users to generate an infinite number of addresses from a single private key, so a user can give a different address to everyone to have better privacy
----
From: 526943296 Andrew
Timestamp: 15-12-2021 15:16:29(UTC+1)
Source App: Telegram
Body:
No worries! Poma, how do I refer to you?

From: 49410950 Sergey 1inch PR
Timestamp: 15-12-2021 15:17:38(UTC+1)
Source App: Telegram
Body:
@semenov_roman @alex_pertsev @rstormsf � �

From: 2526945 Роман Семенов
Timestamp: 15-12-2021 15:18:32(UTC+1)
Source App: Telegram
Body:
Roman Semenov

From: 526943296 Andrew
Timestamp: 15-12-2021 15:18:41(UTC+1)
Source App: Telegram
Body:
Core contributor?

From: 2526945 Роман Семенов
Timestamp: 15-12-2021 15:18:50(UTC+1)
Source App: Telegram
Body:
yep

From: 526943296 Andrew
Timestamp: 15-12-2021 15:18:55(UTC+1)

Source App: Telegram
Body:
Ty!

From: 207504596 Alexey Pertsev (owner)
Timestamp: 15-12-2021 16:04:00(UTC+1)
Source App: Telegram
Body:
https://twitter.com/TornadoCash/status/1471133568021803009

From: 793320066 Zack Seward
Timestamp: 15-12-2021 16:04:56(UTC+1)
Source App: Telegram
Body:
https://twitter.com/CoinDesk/status/1471133408780857348

From: 49410950 Sergey 1inch PR
Timestamp: 15-12-2021 16:08:54(UTC+1)
Source App: Telegram
Attachments:
#1: chats\Telegram_Alexey Pertsev\attachments91\AnimatedSticker.tgs
Body:

From: System Message System Message
Timestamp: 11-1-2022 18:38:01(UTC+1)
Source App: Telegram
Body:
<Alexey Pertsev invited bt11>

From: 207504596 Alexey Pertsev (owner)
Timestamp: 11-1-2022 18:38:03(UTC+1)
Source App: Telegram
Body:
Hi everyone. I invited one of active community members. @dxbt11 can help with some interesting
content from our side. Stay tunned �

From: 793320066 Zack Seward
Timestamp: 11-1-2022 18:49:25(UTC+1)
Source App: Telegram
Body:
sounds good, thanks!

From: 207504596 Alexey Pertsev (owner)
Timestamp: 13-1-2022 10:06:48(UTC+1)
Source App: Telegram
Body:
@zackseward @andrewsmartcontract could you provide us any feedback?

From: 793320066 Zack Seward
Timestamp: 13-1-2022 14:00:51(UTC+1)
Source App: Telegram
Body:
oh hi there, that's a cool development but i don't think we're going to be able to get to this one! keep us
posted on TVL in the coming weeks. thanks!

From: 207504596 Alexey Pertsev (owner)
Timestamp: 13-1-2022 16:07:43(UTC+1)
Source App: Telegram
Body:
np �

From: 207504596 Alexey Pertsev (owner)
Timestamp: 13-1-2022 16:08:38(UTC+1)
Source App: Telegram
Body:
Tornado Cash Has Been Deployed on Optimism

https://twitter.com/TornadoCash/status/1481642447071444996

From: 526943296 Andrew
Timestamp: 29-3-2022 19:00:35(UTC+2)
Source App: Telegram
Body:
Heya, anyone around to chat about axie? Would like to ask a few general questions about how one goes about cashing out 600 mil
----
From: 793320066 Zack Seward
Timestamp: 15-4-2022 14:11:28(UTC+2)
Source App: Telegram
Body:
thanks for this

From: System Message System Message
Timestamp: 15-4-2022 14:15:48(UTC+2)
Source App: Telegram
Body:
<Zack Seward invited Eliza Gkritsi>

From: 793320066 Zack Seward
Timestamp: 15-4-2022 14:16:03(UTC+2)
Source App: Telegram
Body:
my colleague Eliza is writing about this and may send a few questions here. thanks!

From: 1223895328 Eliza Gkritsi
Timestamp: 15-4-2022 14:16:32(UTC+2)
Source App: Telegram
Body:
Hi Tornado team!

From: 1223895328 Eliza Gkritsi
Timestamp: 15-4-2022 14:17:29(UTC+2)
Source App: Telegram
Body:
I want to ask a) does this actually block transactions? And b) how you came to this decision
----
From: 1223895328 Eliza Gkritsi
Timestamp: 15-4-2022 14:27:49(UTC+2)
Source App: Telegram
Body:
Is this something new or have you always complied with the OFAC list?

From: 793320066 Zack Seward
Timestamp: 15-4-2022 15:47:38(UTC+2)
Source App: Telegram
Body:
hey @alex_pertsev, just trying to find the "new" thing about this tweet. i'm assuming the addition of the Chainalysis tool is new, right? our reporting suggests that OFAC compliance on the frontend isn't new so just hoping to be clear on that
----
From: 793320066 Zack Seward
Timestamp: 15-4-2022 15:47:53(UTC+2)
Source App: Telegram
Body:
@xdtb15 too if you're able to speak to that

From: System Message System Message
Timestamp: 15-4-2022 18:29:37(UTC+2)
Source App: Telegram
Body:
<Zack Seward invited Danny Nelson>

From: 793320066 Zack Seward
Timestamp: 15-4-2022 18:29:43(UTC+2)
Source App: Telegram
Body:
adding reporter Danny Nelson to the chat

From: 917230415 Danny Nelson
Timestamp: 15-4-2022 18:31:48(UTC+2)
Source App: Telegram
Body:
Hi all. I'm seeing that the NK/ronin address continues to ram 100 eth batches through TornadoCash by sending it to a holding address first.

From: 56181931 Roman Storm
Timestamp: 16-4-2022 02:12:12(UTC+2)
Source App: Telegram
Body:
1. how do u know if the hacker sends funds to the same entity/himself/herself?
2. OFAC is the judge on what addresses needs to be banned.
so, it's guessing game so far. I assume only 1 address has been identified by OFAC that should be sanctioned relating to that event. Which means Chainalysis update whatever is in sanction's list.

From: 917230415 Danny Nelson
Timestamp: 19-5-2022 17:57:00(UTC+2)
Source App: Telegram
Body:
hi all. today an ofac officer said the following

From: 917230415 Danny Nelson
Timestamp: 19-5-2022 17:57:24(UTC+2)
Source App: Telegram
Body:
"too often we see virtual asset service providers that are willing to do business with problematic companies up until the day of an OFAC designation or criminal indictment, even when there were clearly observable red flags and indicators of wrongdoing that they could and arguably should have taken note

of long ago."

From: 917230415 Danny Nelson
Timestamp: 19-5-2022 17:57:59(UTC+2)
Source App: Telegram
Body:
i'm wondering if assertions like this are at odds with Tornado's view of obligations
----
From: System Message System Message
Timestamp: 5-7-2022 15:23:23(UTC+2)
Source App: Telegram
Body:
<Danny Nelson invited Christie Harkin>

From: 917230415 Danny Nelson
Timestamp: 5-7-2022 15:24:04(UTC+2)
Source App: Telegram
Body:
Thank you! Looking forward to this one. Our tech editor Christie will take it from here
----
From: 442407262 Christie Harkin
Timestamp: 5-7-2022 15:25:11(UTC+2)
Source App: Telegram
Body:
Thanks! I'll get someone on it shortly.

From: 442407262 Christie Harkin
Timestamp: 6-7-2022 14:18:15(UTC+2)
Source App: Telegram
Body:
Yes! I've passed the information along to our tech reporter and he's on it.

From: 442407262 Christie Harkin
Timestamp: 7-7-2022 17:27:48(UTC+2)
Source App: Telegram
Body:
Do you have that GitHub link yet? We're getting the article scheduled now.

From: 442407262 Christie Harkin
Timestamp: 7-7-2022 17:30:12(UTC+2)
Source App: Telegram
Body:
Also, a question. I know that TC has a governance token. Was there a vote on this development?

From: 442407262 Christie Harkin
Timestamp: 7-7-2022 17:31:34(UTC+2)
Source App: Telegram
Body:
Do you need to stake a token to participate in the GitHub or anything like that?

From: 442407262 Christie Harkin
Timestamp: 7-7-2022 17:36:21(UTC+2)
Source App: Telegram
Body:
Ok great. Thanks.

From: 442407262 Christie Harkin
Timestamp: 7-7-2022 17:41:32(UTC+2)
Source App: Telegram
Body:
Thanks! I'll pass that along as well.

From: 442407262 Christie Harkin
Timestamp: 7-7-2022 19:08:15(UTC+2)
Source App: Telegram
Body:
https://www.coindesk.com/tech/2022/07/07/decentralized-mixer-tornado-cash-open-sources-its-user-interface/

From: 2526945 Роман Семенов
Timestamp: 8-7-2022 00:42:32(UTC+2)
Source App: Telegram
Body:
retweeted from tornado account

From: 442407262 Christie Harkin
Timestamp: 8-7-2022 03:13:14(UTC+2)
Source App: Telegram
Body:
Thank you! We'll be in touch for a follow up article soon.

From: 917230415 Danny Nelson
Timestamp: 8-8-2022 17:10:26(UTC+2)
Source App: Telegram
Body:
Hi all. We would love to do an interview with you guys to discuss the treasury action
----
From: 917230415 Danny Nelson
Timestamp: 8-8-2022 17:10:30(UTC+2)
Source App: Telegram
Body:
Any interest?

From: 917230415 Danny Nelson
Timestamp: 8-8-2022 17:15:08(UTC+2)
Source App: Telegram
Body:
Could be a good way to issue a statement about the collateral damage this will do to privacy. Let me know what you think
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